

May 27, 2020

Exhibit 5

Dear Mr. Kolman:

I am pleased to submit the comments below for your consideration for the Montana Environmental Quality Council meeting on May 27<sup>th</sup>.

I was able to send these individually to all members but Keane, Aspenleider, Vincent, Rogers and Holmes.

Sincerely,

A. John Ahlquist

**COMMENTS FOR THE  
MONTANA ENVIRONMENTAL QUALITY COUNCIL  
MEETING OF MAY 27, 2020  
by  
A. JOHN AHLQUIST**

I was born and raised Glendive and am a certified health physicist who has worked in nuclear testing, environmental surveillance and remediation. At one time I was responsible for remediation of Department of Energy sites ranging from Florida to Alaska with an emphasis on the western states where there are facilities supporting the nuclear weapons complex. Remediation included all kinds of contaminates such as radiological, explosive, hazardous and petroleum products.

Radiation should not be feared but respected and handled appropriately. For disposal of radioactive materials, facilities must be appropriately designed and processes easy to accomplish. Requirements should be clear and not subject to interpretation and should not vary widely between states.

The EQC should withdraw its informal objection and allow the rule making for TENORM to proceed to completion. The rule making process has been long, robust and comprehensive. It is based on science. The overwhelming number of commenters in the areas where the facilities are or are proposed to be built support the limit of 50 pCi/g. Commissioners from potential host counties for new facilities, Richland County and Sheridan County support this limit.

The current draft of the rule keeps Montana's limit in line with all other states who have derived TENORM limits. It reduces the probability that Montana becomes North Dakota's dumping ground. North Dakota does not provide any compensation to Montana for being the host state. Eliminating the rolling average requirement simplifies requirements and regulatory burdens for both the operators and the regulators.

Applicants for new facilities should have a substantial presence in Montana, be subject a thorough vetting process and have an established record for environmental stewardship in order to obtain a permit and license.

### **BACKGROUND COMMENTS**

Since I was born and raised in Glendive and am a certified health physicist, I was quite interested when I learned that the first TENORM disposal site for oil field waste in Montana was started by the son of high school classmates. Because of my extensive background in radiation protection and environmental surveillance and restoration, I have followed the Oaks facility from its early days. The founder found out that operating such a facility was more work than a grain farmer wanted to handle so he sold it to Buckhorn Waste Services. Buckhorn is based out of state and its management and directors are investment bankers and hedge fund managers.

Limits for disposal of radioactive waste are based on the design of the waste facility. As radiation levels increase, the siting and engineered components of systems become more robust and oversight and monitoring become more rigorous. For disposal sites for radioactive waste regulated by the Nuclear Regulatory Commission, states have formed regional compacts so that each state does not need to have its own facilities. Montana is part of the Northwest Regional Compact and its waste goes to facilities at Hanford, WA.

TENORM waste is unique and in a category of its own. For TENORM waste there are no national standards or regulations so each state is left to its own devices.

Recognizing the need for setting standards for TENORM and at the urging of neighbors of the Oaks facility and others, DEQ started a rule making process in 2015. DEQ developed its rules by tiering off the work done for North Dakota by

Argonne National Laboratory with additional technical input from Tetrattech. Multiple iterations later with many public meetings and thousands of public comments DEQ issued a proposed final rule in January 2020.

The crux of the current discussion is whether or not the standards should be set at a static limit of 50 pCi/g, or set at a rolling average of 50 pCi/g inside the landfill with ability to accept waste up to 200 pCi/g as long as the rolling average is kept the total below 50 pCi/g. A case can be made for the latter but it becomes much more difficult to verify.

One EQC member made the point at the April meeting that he can average his 13% and 15% protein wheat to get the desired 14% value. But, how would he average a mixture of wheat, oats, barley, lentils, peas and alfalfa to get an average protein content?

Averaging TENORM levels over tanks, pipes, filter socks, contaminated soil and drill cuttings presents a similar dilemma. Also, TENORM comes in varied radionuclide mixtures.

No other state has TENORM limits above 50 pCi/g. Neighboring North Dakota's limit is 50 pCi/g but has no TENORM disposal facilities.

It is no mystery that  $\frac{3}{4}$  of the waste at Montana's only operational TENORM landfill [about 50 miles from the border] comes from North Dakota. Landfills that have been proposed or permitted in Montana but not yet built are all located between 3 to 35 miles from North Dakota. The corporation for proposed Yellowstone Disposal facility near Sidney is headquartered in a storefront in Lewistown. Its spokesman was from the parent corporation in Williston which has an oil field waste disposal facility south of town that does not accept TENORM. The proposed design is badly flawed.

Limits are based on facility design so how is Buckhorn's Oaks facility is working? Downstream wells of the facility have shown increased levels of chlorides and indicate increased levels of radium. Since brine is a major contaminant of produced oil, it is sure to be a contaminant in any materials brought to Oaks. There appears to be little or no urgency on behalf of Buckhorn or the DEQ to figure out what is or may be leaking into the ground water used by neighboring farms and ranches. In my experience, any indication like this should prompt an immediate and thorough investigation. In fact the upstream well for monitoring Oaks had no water at all!

When I went to the boundary of the facility in September, it had been raining a lot and I've been told over one million gallons of leachate have been hauled out of the facility – probably to an injection well in North Dakota. Why is there leachate? A leachate collection system only exists to be a secondary containment should the liners fail. An intact liner would make the site more like a bathtub in heavy precipitation events. Oaks even had to install a leachate collection pond to keep leachate from flooding the area. Clearly the liner has failed. That is not surprising because the turning of heavy equipment, especially tracked vehicles, would put tremendous stress on a liner and likely is to tear it. Basically, the site is too close to ground water and surface streams where there is little margin for failure and should not have been permitted in the first place.

The EQC is well aware of the legacy of failed systems left behind by various industries creating an environmental remediation burden to be borne by taxpayers from succeeding generations.

Montana needs to take care of Montana waste but it must be done properly. Through a nearly seven year process involving the DEQ, citizens and the industry has led to a 50 pCi/g limit with no rolling average. I support this decision and request that any facility licensed should be well designed and monitored frequently for proper performance. Any issues must be fixed promptly. The Oaks facility must be reevaluated to understand its apparent failure mechanisms and be fixed or be properly closed.

Let private property rights and protection of our land and water be the goal for TENORM disposal so that the land and water can be used by future generations without requiring taxpayer funded remediation efforts.

**I urge the EQC to remove its objection to the rule and allow it to go final as is.**

As to my background, my grandparents homesteaded in eastern Montana and western North Dakota between 1908 and 1913. I spent many days on their farm. From their example I learned a strong conservation ethic. The words conservation and conservative spring from the same root. Many cousins still live on farms and ranches in the area which is only possible because they are good land stewards and good at business. Since my maternal grandparents' farm was on the Montana and North Dakota border, I have small amounts of mineral rights and income in each state and pay taxes in both.